3.6 Visual/Aesthetics

3.6.1 Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* [emphasis added] and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of *aesthetic*, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

3.6.2 Methodology

This section summarizes the methodology and terminology used to assess the visual impacts of the project alternatives. The visual impact analysis generally followed the methodology in the *Visual Impact Assessment for Highway Projects* (FHWA, January 1988). Six principal steps were carried out to assess the potential visual impacts of the Proposed Project and are listed below.

- Define the project location and setting.
- Analyze existing visual resources, changes to those resources, and viewer response.
- Depict or describe the visual appearance of project alternatives.
- Assess the visual impacts of project alternatives.
- Propose measures to offset visual impacts. The purpose of these measures is to avoid, minimize, and/or mitigate adverse visual impacts.

3.6.2.1 Visual Resources and Resource Change

Visual resources are defined and identified by assessing visual character and visual quality in the visual setting. Resource change is assessed by evaluating the visual character and the visual quality of the visual resources that comprise a study area before and after the construction of a project.

Visual Character

Resource change is assessed based on visual character and visual quality. Visual character is descriptive and non-evaluative, which means it is based on defined attributes that are neither good nor bad. A change in visual character cannot be described as having good or bad attributes until it is compared with the viewer response to that change.

Changes in visual character are identified by how visually compatible a proposed project would be with the existing conditions by using visual character attributes as indicators. The attributes considered for assessment of visual character are listed below.

- **Form:** Visual mass or shape
- **Line:** Edges or linear definition
- **Color:** Reflective brightness (light, dark) and hue (red, green)
- **Texture:** Surface coarseness
- **Dominance:** Position, size, or contrast
- **Scale:** Apparent size as it relates to the surroundings
- **Diversity:** A variety of visual patterns
- **Continuity:** Uninterrupted flow of form, line, color, or textural pattern

Visual Quality

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the project corridor. Public attitudes validate the assessed level of quality and predict how changes to a study area can affect these attitudes. This process helps identify specific methods for addressing each visual effect that may occur as a result of the Proposed Project.

The degree of visual quality in a view was evaluated using the FHWA descriptive terms listed below.

- **Vividness:** Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns (e.g., Niagara Falls is a highly vivid landscape component).
- **Intactness:** Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes and natural settings (e.g., a two-lane road that meanders through the countryside).

- **Unity:** Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape (e.g., an English or Japanese garden).

3.6.2.2 Viewer Response

Viewer response is a measure or prediction of the viewer's reaction to changes in the visual environment and has two dimensions: viewer exposure and viewer sensitivity.

Viewer Exposure

Viewer exposure is a measure of the viewer's ability to see a project feature. Viewer exposure has three attributes: location, quantity, and duration. Location relates to the position of the viewer in relationship to a project feature. The closer the viewer is to a project feature, the more exposure. Quantity refers to how many people see a project feature. The more people who can see a project feature or the greater frequency a project feature is seen, the greater the exposure. Duration refers to how long a viewer is able to keep a project feature in view. The longer a project feature can be kept in view, the more the exposure. High viewer exposure helps predict that viewers would have a response to a visual change.

Viewer Sensitivity

Viewer sensitivity is a measure of the viewer's recognition of a project feature and has three attributes: activity, awareness, and local values. Activity relates to viewer preoccupation, i.e., is a viewer thinking of something else, or is the viewer engaged in observing his surroundings. The more a viewer observes his surroundings, the more sensitivity a viewer has to changes to visual resources. Awareness relates to the focus of the view; either the focus is wide and the view is general or the focus is narrow and the view is specific. The more specific the awareness, the more sensitive a viewer is to change. If a viewer value aesthetics, or if a specific visual resource has been protected by local, State, or national designation, it is likely that the viewer would be more sensitive to visible changes. High viewer sensitivity helps predict that a viewer would have a high concern for any visual change.

3.6.2.3 Visual Impact

Visual impacts are determined by assessing changes to the visual resources and predicting viewer response to those changes (Resource Change + Viewer Response = Visual Impact).

The levels of visual impact are:

- **Low:** Minor adverse change to the existing visual resource with low viewer response to a change in the visual environment.
- **Moderate Low:** Moderate adverse change to the existing visual resource with low viewer response to a change in the visual environment.
- **Moderate:** Moderate adverse change to the existing visual resource with moderate viewer response to a change in the visual environment.
- **Moderate High:** Moderate adverse change to the existing visual resource with high viewer response to a change in the visual environment or high adverse visual resource change with moderate viewer response to a change in the visual environment.
- **High:** Excessive adverse visual change to the existing visual resource or a high level of viewer response to a change in the visual environment such that architectural design and landscape treatment cannot mitigate the impacts.

3.6.3 Affected Environment

The information in this section is based on the *Visual Impact Assessment* (VIA; August 2015) and the *Visual Impact Assessment Clarification Memorandum* (June 2016) prepared for the Proposed Project.

3.6.3.1 Visual Setting

The Study Area for visual assessment purposes is the area of physical disturbance associated with the Proposed Project (Project Area) and the surrounding landscape. The existing visual setting includes several types of land uses and visual characteristics, including open space, recreational, residential, commercial, local roads, and freeways (SR-241 and SR-91). The Study Area includes the existing interchanges, overhead structures, retaining walls, embankments, and highway ramps associated with existing SR-241 and SR-91.

The general visual character of the Study Area is defined by the regional landscape, but the specific visual environment on which the visual assessment focused was determined by defining a view corridor within the Study Area. The View Corridor for the Proposed Project is defined as the area of land visible from, adjacent to, and outside the highway right-of-way, and is determined by topography, vegetation, and viewing distance. The View Corridor is characterized by residential uses, open space, hillsides, and the Santa Ana River.

The Study Area is in the Hill and Canyon Area in the east part of the City of Anaheim which is generally bounded by Orangethorpe Avenue/Esperanza Road to the north,

Anaheim City limits to the east and south, and State Route 55 (SR-55) to the west. The Hill and Canyon Area consists of vast open space, and is adjacent to Chino Hills State Park, the Cleveland National Forest, and the Santa Ana River. Natural slopes, hillsides, and ridgelines create a scenic viewshed for motorists traveling along local roads, including SR-241 and SR-91, and residents of the Hill and Canyon Area. Substantial elevation variation exists along SR-241 from the Windy Ridge Wildlife Crossing north to SR-91.

According to the Caltrans Scenic Highway Program, SR-91 is officially designated as a Scenic Highway west of SR-55. SR-91 from west of SR-241 to east of Interstate 15 (I-15) is an eligible State Scenic Highway. South Weir Canyon Road, approximately 0.58-mile (mi) west of the project View Corridor, is designated as a Scenic Expressway in the City of Anaheim General Plan (2004). However, the Project Area is not visible from that Scenic Expressway.

The Hill and Canyon Area in the City of Anaheim is an area of aesthetic value to Anaheim residents. The City of Anaheim General Plan has specific provisions to protect visual resources in general and in this area, including the following Goals and Policies:

Guiding Policies: Circulation

- Goal 4.1: Preserve and enhance uniquely scenic or special visual resource areas along highways and designated State scenic routes for enjoyment of all travelers.
  - Policies:
    - Continue to work with Caltrans in its implementation of the State Scenic Highway Program. Ensure the preservation and enhancement of scenic routes through special highway design and building regulation.
    - Consider the unique natural features of the Hill and Canyon Area when arterial streets and highways are improved or constructed.

Guiding Policies: Green Element

- Goal 2.1: Preserve views of ridgelines, natural open space, and other scenic vistas wherever possible.
  - Policies:
    - Encourage development that preserves natural contours and views of existing backdrop ridgelines or prominent views.

Guiding Policies: Hill and Canyon Area

- Goal 21.1: Preserve Hill and Canyon Area's sensitive hillside environment and the community's unique identity.
  - Policies:
    - Work with Caltrans to achieve enhanced landscaping with the Riverside (SR-91) Freeway right-of-way to enhance the image of the area as viewed from the freeway.

Additionally, the City of Yorba Linda General Plan (1993) has the following goals and policies that apply to scenic views, vistas, corridors, and open space that apply to the Proposed Project:

Guiding Policies: Land Use

- Goal 9: Preservation and enhancement of the natural setting of the City.
  - Policy 9.1: Preserve sensitive open space areas within the City.
  - Policy 9.2: Protect the scenic and visual qualities of the hillside areas and ridgelines.
  - Policy 9.3: Ensure that land uses within designated and proposed scenic corridors are compatible with scenic enhancement and preservation.

Finally, the City of Corona General Plan (2004) provides guiding goals and policies regarding the conservation of significant hillsides, valley lands, floodplains, and other aesthetic view corridors, or viewsheds, within the City. The City of Corona General Plan acknowledges SR-91, from the I-15 interchange to the SR-55 interchange, as a State-eligible scenic corridor. In addition, the following goals and policies from the City of Corona General Plan apply to the Proposed Project:

Guiding Policies: Environmental Resources-Visual Resources

- Policy 10.22.4: Require that projects be designed and sited to maintain the natural topographic, physiographic, and aesthetic viewshed characteristics of those features, utilizing the following conditions:
  - Minimize the area and height of cuts and fills, to the extent technically achievable, ensuring that slope tops and bottoms are rounded and facilitate a smooth and seamless transition where natural and built slopes intersect.

- Minimize the height of retaining walls and design with smooth flowing forms that follow topography and with material colors and textures that blend in with the surrounding landscape.
- Plant hillside and canyon slopes with drought-tolerant species to soften the visual impact of land grading retaining walls, structures, and roads.
  - Goal 10.23: Maintain, establish, develop, and protection of the City's highways and corridors for scenic purposes.
  - Policy 10.23.2: Regulate new development through provisions that require an analysis of development on the quality of the City's designated highways and corridors.

3.6.3.2 Visual Quality and Character

In the View Corridor, there is consistent form and color patterns and similar views of open space, hills, ridgelines, valleys, canyons, and peaks associated with Chino Hills State Park, the Cleveland National Forest, the Santa Ana Mountains, and the Santa Ana River in the View Corridor. Textural elements in the View Corridor include mature vegetation, rock outcroppings, and open space areas that create a sense of unity for viewers.

3.6.3.3 Viewer Response

The visual experiences of residents in the areas surrounding the project segments of SR-241 and SR-91 with views to SR-241 and SR-91 and motorists along SR-241 and SR-91 with views from those roads could potentially be affected by the Proposed Project. Because the View Corridor includes scenic roads and is in the Hill and Canyon Area in the City of Anaheim, it is considered to be of aesthetic value to residents and motorists in the area.

3.6.3.4 Viewer Sensitivity

The View Corridor is considered to have moderate-high viewer sensitivity based on goals and policies in the City of Anaheim General Plan focusing on protecting the Hill and Canyon Area where the Proposed Project improvements would be located. Additionally, the segment of SR-91 east of the SR-241/SR-91 interchange is an eligible State Scenic Highway under the Caltrans Scenic Highway Program. Therefore, the View Corridor contains visual resources of aesthetic value with moderate-high viewer sensitivity.

3.6.3.5 Viewer Exposure

Motorists

SR-241 and SR-91 (within the Project Area) are not currently designated State Scenic Highways. SR-91 is eligible to become a designated State Scenic Highway from east of Weir Canyon Road to I-15, based on views of the surrounding unique landscape (i.e., hillsides, ridgelines, valleys, and canyons associated with the Santa Ana Mountains, Chino Hills State Park, the Cleveland National Forest, and the Santa Ana River), lack of visual intrusions to visual resources, strong local support for listing, and appropriate length. The View Corridor has views of scenic resources, including the surrounding hills and ridgelines of the Santa Ana Mountains and Chino Hills State Park, the Santa Ana River, and other open space areas. As such, motorists are anticipated to have a moderate-high viewer sensitivity in the View Corridor.

Motorists in the View Corridor also currently experience views of bridge connector structures, freeway infrastructure, retaining and sound walls, and graded slopes. In addition, traffic congestion during peak hours is substantial. As a result, motorists have a moderate-low visual awareness of the View Corridor.

Community Residents

There are existing residential uses within 0.5 mi of the Project Area. West of the Project Area, residents would not have views of the express lane connectors due to topographical elevations. The bridge structures would not be visible from the Canyon RV Park due to obstruction of views from that area by existing vegetation. Residents of Yorba Linda north of the project site experience long-duration views, and therefore, have high viewer awareness of the Proposed Project features.

3.6.4 Environmental Consequences

3.6.4.1 Temporary Impacts

Build Alternative (Two-Lane Express Lanes Connector) (Preferred Alternative)

Short-term visual impacts would occur during construction of the Build Alternative. Construction of the Build Alternative would expose sensitive viewers including motorists and residents to views of cleared vegetation, graded slopes, construction vehicles, equipment, and other materials. Construction activities would be temporary, and the visual impacts related to views of the construction activities would cease after completion of construction; therefore, no substantial impacts would occur.

During periodic nighttime construction, safety/security lighting would be used in accordance with California Division of Occupational Safety and Health (Cal/OSHA) standards. Nighttime construction is estimated to periodically occur during some stages of the approximately 18-month construction period; this would be a temporary condition, and would cease when construction is completed.

No Build Alternative

The No Build Alternative would maintain the existing configuration of the SR-241/SR-91 interchange, and an express lanes connector would not be constructed. No other roadway improvements are planned on SR-241 and SR-91 and in the project View Corridor. Therefore, there would be no construction-related visual impacts under the No Build Alternative because no roadway improvements would be made.

3.6.4.2 Permanent Impacts

Build Alternative (Two-Lane Express Lanes Connector) (Preferred Alternative)

The Build Alternative would result in long-term visual impacts as a result of permanent alteration of the existing visual environment at the SR-241/SR-91 interchange. Alterations to existing roads (widening of SR-241/SR-91 and existing roadway undercrossing), grading, and the implementation of four new retaining walls, piers/supports, and buffers would also occur. Two large bridges for the connector would be added within the existing SR-241/SR-91 interchange, standing approximately 60 feet high, consistent with the existing general purpose lane bridges that connect the two freeways. New light standards would be included on the bridges, adding to night-sky impacts. Numerous signage additions would add to visual clutter along the two freeways. The added impervious area (concrete/asphalt) would be approximately 20 acres, and the disturbed soil area would be approximately 44 acres. Visual character would become more urbanized within a freeway landscape that is surrounded by parkland, wildlife preserves, residences, and the Santa Ana River.

Resource Change

The new bridge connectors would be constructed of similar massing profile and architectural treatments as the existing SR-241/SR-91 connectors and three of the four retaining walls would be constructed in the median. One retaining wall would be constructed adjacent to eastbound SR-91, approximately 3,000 ft west of the Coal Canyon Undercrossing and would be approximately 1,350 ft long and up to 28 ft high. Only the top 3 ft of the retaining wall cap would be visible from SR-91 due to the grade difference. Two walls would be constructed in the median of SR-91 to

support the connector as it transitions to an elevated structure. These walls would be approximately 1,350 ft long and up to 15 ft high, but views of those walls would be blocked by the existing structures associated with the SR-241/SR-91 interchange. The last wall would be constructed in the median of SR-241 to support the road widening and would not be visible from the road. This wall would be approximately 2,250 ft long and up to 15 ft high. The features of the Build Alternative would result in similar encroaching features in the View Corridor as the existing freeways and their associated structures. The proposed bridge connector would be constructed of similar mass, profile, paving, and other construction materials to the existing general purpose lane connectors in the Project Area. Further, the proposed wall features would be similar to those currently experienced on the site and in the Project Area.

Native vegetation and trees are visual resources and will be removed or disturbed by grading, including coastal sage scrub (approximately 45 acres, of which approximately 14 acres would be permanently converted to roadway features). As discussed in Section 3.15, up to eight coast live oak trees, 15 sycamore trees, and three California Black Walnut trees would be temporarily impacted by trimming and dust, which would not affect their long-term viability. Six oak trees would be permanently impacted. Disturbed vegetation would be revegetated with native species, and trees would be replaced at a minimum 2:1 ratio. All of the impacted trees are in the median of the SR-241/SR-91 interchange. Views of the existing trees and coastal sage scrub in the median of the SR-241/SR-91 interchange are somewhat obscured by the existing structures and support pilings.

The views of surrounding areas including the Cleveland National Forest, Chino Hills State Park, the Santa Ana Mountains, and the Santa Ana River would be similar to existing conditions, and would not be obstructed by the Build Alternative.

Figure 3.6.1 shows the location of the proposed express lanes connector within the existing SR-241/SR-91 interchange. The proposed median-to-median connector would appear similar to the existing general purpose lanes connectors at the SR-241/SR-91 interchange. The new bridge structure would be of similar profile as the existing structures and would be positioned within Caltrans right-of-way between the existing SR-241/SR-91 northbound-to-southbound connectors.

LEGEND

- New Structure

FIGURE 3.6.1

N

SOURCE: Michael Baker International (June 2015)

SR-241/SR-91 Express Lane Connector

Aerial View of Proposed Express Lanes Connector Structure

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Figure 3.6.2 shows a view of the existing interchange and segments of SR-241 and SR-91, as well as the location of the proposed express lanes connector from a viewpoint north of the interchange. As shown, the express lane connector would be visible from that viewpoint..

The limited existing lighting in the Project Area includes signalized intersections, street lighting, pedestrian lighting, and vehicle headlights. The Build Alternative would include permanent safety and security lighting fixtures that would be hooded where feasible, and the lighting would be directed on site to minimize potential intrusion of light and glare onto nearby land uses. The lighting would be designed consistent with the existing lighting along SR-241 and SR-91.

The visual impacts associated with the Proposed Project would be consistent with the goals and policies identified in the City of Anaheim General Plan, the City of Corona General Plan, and the City of Yorba Linda General Plan related to scenic viewsheds, and views of hillsides, open space, and ridgelines, and areas along designated and eligible State Scenic Highways. In summary, the visual character/quality of the views experienced within the View Corridor would not be substantially reduced as a result of the Build Alternative. Visual character would be moderate-low, and visual quality would be moderate-low. As such, visual resource impacts would be moderate-low.

Viewer Response

Motorists traveling on SR-91 would experience views of the express lane bridge connectors and retaining walls, but views of open space and other visual resources in the vicinity of the SR-241/SR-91 interchange would not be obstructed. Therefore, motorists in the View Corridor are anticipated to have a moderate-low visual response to the Build Alternative.

Residents with views of the Project Area would experience permanent views of the proposed express lanes connector. However, the existing views of hillsides, ridgelines, and open space for residential viewers would not be obstructed as a result of the Build Alternative. Therefore, the anticipated community resident viewer response for the Proposed Project is moderate-low.

Visual Impact

Visual impacts of a project alternative are based on the combination of the resource change and viewer response. Based on the discussion above, the visual impacts as a result of the Build Alternative would be moderate-low and, therefore, no substantial impacts would occur.

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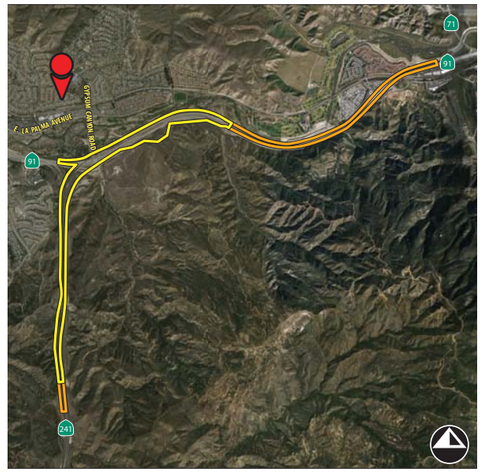

Index Map

Project Boundary
New Advanced Signage Areas
Direction of Photo, Photo Location

For comparative purposes, site photographs are utilized to demonstrate the general character at different points of the project area. This simulation is subject to change and is intended to provide the reader with information on the form, size, and scale of the proposed improvements in the project area.

FIGURE 3.6.2

SR-241/SR-91 Express Lanes Connector

Long-Duration View of Proposed Express Lanes Connector Structure

SOURCE: Michael Baker International (June 2015)

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No Build Alternative

The No Build Alternative would maintain the current configuration of SR-241, SR-91, and the SR-241/SR-91 interchange. Under the No Build Alternative, there would be no construction-related visual impacts because no roadway improvements would be implemented, and there would be no change to the existing freeway facilities. Therefore, there would be no permanent visual impacts in the vicinity of the SR-241/SR-91 interchange under the No Build Alternative.

3.6.5 Avoidance, Minimization, and/or Mitigation Measures

The measures below will be implemented to avoid and minimize permanent impacts to visual resources. These include applicable, previously adopted measures from the ETC Final EIR and Final EIS.

Measure V-1 **Lighting Fixtures.** In conjunction with final design, proposed lighting fixtures shall be hooded where feasible and lighting shall be directed on the site to minimize potential intrusion of light and glare onto nearby land uses. Lighting shall be designed consistent with the existing lighting along the State Route 241 corridor.

Measure V-2 **Hillsides.** To avoid visual impacts resulting from cut hillsides and filled topography, hills should be preserved where possible. All disturbed areas associated with cut-and-fill activities should appear similar in color to existing topography. Manufactured fill slopes should not exceed a four-to-one ratio. Manufactured cut slopes should not exceed a two-to-one ratio. Rounding of manufactured slopes should be applied.

Measure V-3 **Architectural Treatments.** To maintain consistency with the existing infrastructure (i.e., bridges and walls, etc.) in the Project Area, landscape and/or architectural treatments (i.e., color, texture, etc.) for the structure elements of the Proposed Project shall be determined in consultation with the District Landscape Architect during the Final Design process.

Measure V-4 **Landscaping.** To maintain the context of the Project Area (color, form, and texture) the Proposed Project shall install landscaping that is compatible with the existing landscape along the freeway. The landscape concept and plant palette

shall be determined in consultation with the District Landscape Architect during the Final Design process. Erosion control plant species utilized shall be determined by the District Landscape Architect to ensure that the mix and application strategy is appropriate for the specific soil composition of the area. Drought-tolerant native species shall be used adjacent to areas of native habitat. Enhanced plantings shall occur adjacent to wildlife crossings.

Measure V-5 **Construction Lighting.** For all nighttime construction activities, necessary lighting for safety and construction purposes shall be contained and directed toward the specific area of construction.

Measure V-6 **Context-sensitive Solutions.** Context-sensitive solutions will be used. Slopes graded for the Build Alternative will be contoured consistent with the existing topography, and all disturbed soil areas will be seeded with drought-tolerant native plant species consistent with existing vegetation.

Measure V-7 **Tree Planting.** Permanently impacted Coast live oak, California walnut, and sycamore trees will be replaced at a minimum 2:1 ratio. Heritage oaks (oaks greater than 36 inches in diameter at breast height) will be replaced at a minimum 3:1 ratio.

ETC Final EIR and Final EIS

Measure C-19 *Where appropriate and feasible, construction staging areas shall be located inconspicuously to minimize adverse visual effects on residential and recreation areas. They shall be located to avoid any additional impacts on biological, historical or cultural resources.* (*Construction Staging, North and East Legs*)